The Advanced Light Source moves towards top-off and operates new beam lines and experimental facilities.

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With the Advanced Light Source upgrade to top-off operation during this calendar year, the brightness of the source and hence the coherent soft X-ray flux will increase by an order of magnitude or more.

With a dedicated elliptically polarizing undulator, and optimized beam line designs, we plan to dramatically increase the capabilities available at the ALS for diffraction microscopy and x-ray photon correlation studies. Construction of a facility, named COSMIC, has been designated top priority in the ALS Strategic Plan. At the same time a new beam line for microscopic electronic structure studies (MAESTRO) is planned to open up the possibility of nano-scale angle resolved photoemission.

While these, and other, development projects are pursued we are bringing several important new experimental facilities into full operation for the user community. PEEM-3 is now operational on an elliptically polarizing undulator at beam line 11.0.1. Our ultra fast x-ray facility at beam lines 6.0.1 and 6.0.2 is operational for the hard x-ray and soft x-ray programs using laser slicing. MERLIN is being installed at beam line 4.0.3 for ultra high resolution studies of strongly correlated electronic systems. A new soft x-ray microscope operates as the National Center for X-ray Tomography. Micro-diffraction is now operational at beam line 12.3.2 with expanded energy range using a superconducting bend magnet source. A new facility for SAXS/WAXS is operational at beam line 7.3.3.

This combination of machine, insertion device, beam line, and end station upgrades will support the ALS scientific program for many years to come.

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